

CHARLES M. BINGHAM,)
)
Plaintiff,)
)
vs.) Case No. 1:13-cv-00211-TWP-DKL
)
RAYTHEON TECHNICAL SERVICES CO.,)
LLC,)
)
Defendant.)

This matter is before the Court on Defendant Raytheon Technical Services Co., LLC’s (“Raytheon”) Motion to Exclude the Expert Report and Testimony of Lance Seberhagen, Ph.D. (“Dr. Seberhagen”) under Federal Rules of Evidence 702 and 403. ([Filing No. 50](#)). Plaintiff Charles Bingham (“Mr. Bingham”) has designated Dr. Seberhagen as a putative statistics expert to support his claim that Raytheon terminated his employment because of his age. For the reasons set forth below, Raytheon’s motion is **GRANTED**.

The Court previously denied Raytheon's motion for summary judgment ([Filing No. 63](#)) and the detailed facts of this case can be found in that Entry. Relevant to the current motion, Dr. Seberhagen completed a report in which he opines that Mr. Bingham's layoff was not due to a Reduction in Force ("RIF") or lack of work, but rather was due to his age. He bases this conclusion on a comparison between the number of logistics specialists hired and the number laid off between January 2011 and January 2013. In addition, he performed a statistical analysis from which he

concludes that Raytheon's layoffs from February 1, 2012 to January 31, 2013 had an adverse impact on employees age fifty-five and over.

II. LEGAL STANDARD

"Under the Daubert gatekeeping requirement, the district court has a duty to ensure that expert testimony offered under Federal Rule of Evidence 702 is both relevant and reliable." *Jenkins v. Bartlett*, 487 F.3d 482, 488–89 (7th Cir. 2007). "Whether proposed expert testimony is sufficiently reliable under Rule 702 is dependent upon the facts and circumstances of the particular case." *Id.* The Court is given latitude to determine "not only how to measure the reliability of the proposed expert testimony but also whether the testimony is, in fact, reliable." *Gayton v. McCoy*, 593 F.3d 610, 616 (7th Cir. 2010). "The court should [] consider the proposed expert's full range of experience and training in the subject area, as well as the methodology used to arrive at a particular conclusion." *Id.*

III. DISCUSSION

Raytheon argues that Dr. Seberhagen's expert report and testimony fail to meet the admissibility standards of Federal Rule of Evidence 702, and the standards set forth in *Daubert v. Merrill Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). Specifically, Raytheon argues that Dr. Seberhagen's opinions should be excluded because he failed to confirm the underlying facts on which he relied and/or relied upon false factual assumptions, and the report is not relevant to Mr. Bingham's claim.

Rule 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods,

and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. Under this framework, the district court performs a “gatekeeping” function to ensure that scientific evidence is both relevant and reliable. *Daubert*, 509 U.S. at 589. This is a three-step analysis: the witness must be qualified as an expert by knowledge, skill, experience, training, or education, Fed. R. Evid. 702; the expert’s reasoning or methodology underlying the testimony must be scientifically reliable, *Daubert*, 509 U.S. at 592–93; and the testimony must assist the trier of fact to understand the evidence or to determine a fact in issue. Fed. R. Evid. 702.

Raytheon does not question Dr. Seberhagen’s knowledge, skill, training or education; rather, their challenge is based upon the sufficiency of the facts and data used by Dr. Seberhagen, the reliability of his principles and methods used in his analysis, and whether he applied the principles and methods reliably to the facts of the case.

A. Sufficiency of Facts and Data

Raytheon argues that Dr. Seberhagen failed to confirm the underlying facts upon which he relied, and failed to take into account important facts that would have impacted the outcome of his analysis. Dr. Seberhagen based his analysis upon the assumption that all logistics specialists in pay grades A01 through A04, regardless of geographic location, were similarly situated and could perform the work of any other logistics specialist, and that Raytheon randomly selected employees for layoff without considering any employee-specific factors other than age. Dr. Seberhagen was not provided with Raytheon’s RIF guidelines, documents relating to the layoffs of anyone other than Mr. Bingham, or the testimony of the eight deponents; he testified that he was provided the documents that counsel decided were relevant. Seberhagen Dep. 16:3-17:13 ([Filing No. 46-19, at](#)

[ECF pp. 13-14](#)). Dr. Seberhagen also did not account for the actual attrition that took place during the time period he analyzed, only the number of layoffs compared the number of new hires.

Dr. Seberhagen's failure to consider facts relating to Raytheon's RIF guidelines and procedures, the circumstances surrounding the other layoffs, and the differences between the various logistics specialists positions, and employee attrition for reasons other than layoffs, does not satisfy the requirement that expert opinions and testimony be based upon sufficient facts and data. He asserts that, from January 1, 2011 through January 31, 2013, Raytheon hired more new logistics specialists under age 55 than logistics specialists who were laid off; however, he ignores the fact that there was an overall reduction of logistics specialists when looking at all attrition. Dr. Seberhagen did not rely on a complete picture of Raytheon's layoff practices; instead, he ignored factors other than age in his analysis, and erroneously assumed the fungibility of all logistics specialists, regardless of job duties, experience, pay, or location, and also did not consider other reasons for employment separation such as retirement, resignation, promotion, or death. This failure to consider important information is problematic, and calls into question the reliability of his analysis and conclusions.

B. Reliability of Principles and Methods

As a general matter, Seventh Circuit case law holds that statistical analysis is ill suited for proving causation in disparate treatment cases. *Plair v. E.J. Brach & Sons, Inc.*, 105 F.3d 343, 349 (7th Cir. 1997) ("We have held statistics are improper vehicles to prove discrimination in disparate treatment (as opposed to disparate impact) cases."). The case Mr. Bingham relies upon to support his argument that statistical evidence can be used in disparate treatment cases, *Adams v. Ameritech Svcs., Inc.*, 231 F.3d 414 (7th Cir. 2000) is distinguishable. *Adams* involved a pattern and practice age discrimination case brought by a class of over eighty employees terminated during

the same RIF, and the plaintiff offered statistical evidence that the RIF factors had a disparate impact based upon age. The instant case involves a single layoff in which Mr. Bingham alleges that the RIF did not actually occur and was pretext for discrimination, not that the RIF factors favored younger employees. Thus, the Court concludes that this is not the type of case in which statistical analysis is relevant.

In addition, the principles and methods used by Dr. Seberhagen in his statistical analysis are problematic. He acknowledged in his deposition that the method he used to analyze the data—adverse impact ratios—is inappropriate for analysis of small sample sizes such as the one analyzed for his report. Seberhagen Dep. 26:9-28:21 ([Filing No. 46-19, at ECF pp. 23-25](#)). He went on to acknowledge that the Fisher’s Exact Test is recognized as the best test for analyzing small sample sizes. Seberhagen Dep. 54:24-55:6 ([Filing No. 46-19, at ECF pp. 49-50](#)). Dr. Seberhagen admits himself that he did not use the most reliable methodology, and that the method he did use was unreliable for the size of the sample he used. Thus, the Court does not need to analyze whether Dr. Seberhagen used a reliable principle or method; his own testimony indicates that he did not. Even if a statistical analysis were relevant to showing discrimination in Mr. Bingham’s case, the analysis methodology itself is unreliable.

C. Application of Principals and Methods to the Facts of the Case

Not only is the methodology used by Dr. Seberhagen unreliable, application of the method to the facts is unreliable as well. Dr. Seberhagen testified in his deposition that the age groups he selected for analysis—under fifty-five versus fifty-five and up—were selected by Mr. Bingham’s counsel, as well as the time periods to be analyzed and which positions constituted “similar jobs.” Seberhagen Dep. 19:4-20:18 ([Filing No. 46-19, at ECF pp. 16-17](#)). While Dr. Seberhagen testified that he reviewed Raytheon’s documents and agreed with Mr. Bingham’s counsel’s concept, he

also stated that although he was provided data through 2013, he still limited his analysis to the time period requested by counsel. *Id.* He acknowledged that there was no adverse impact for the layoff of employees age fifty-five and over in calendar years 2011 or 2012, it was only when he used the time period specified by Mr. Bingham's counsel—the twelve month period beginning February 1, 2012 through January 31, 2013—that an adverse impact was found. Dr. Seberhagen conceded that the one month shift from a starting date of January 1, 2012 to February 1, 2012, which added one additional laid-off employee, resulted in “a significant statistical difference” in his assessment versus analyzing 2012 as a calendar year. Seberhagen Dep. 28:22-29:17 ([Filing No. 46-19, at ECF pp. 25-26](#)). This it appears that Dr. Seberhagen, at the instruction of Mr. Bingham's counsel, selected a time period that would result in a showing of adverse impact, not one that was necessarily relevant to Mr. Bingham's claim. This does not evidence a reliable application of the facts to the methodology.

Dr. Seberhagen also does not provide any explanation of why he used a sub-group of the class protected under the ADEA, rather than the statutory cut-off for protection under the statute of age forty. Dr. Seberhagen testified that he could not recall any other cases in which he was retained where the age breakdown was limited to fifty-five and over versus under fifty-five, and, again, that he analyzed these sub-group because counsel requested that he do so. Seberhagen Dep. 20:15-21:13 ([Filing No. 46-19, at ECF pp. 17-18](#)). Dr. Seberhagen did not select these age ranges because they yielded an accurate, relevant result; rather, he used these subgroups it fit Mr. Bingham's counsel's “theory of the case.” Seberhagen Dep. 62:2-9 ([Filing No. 46-19, at ECF p. 57](#)). Other courts have rejected the use of subgroups of employees over the age of forty when assessing whether employment decisions were based upon age. *See EEOC v. McDonnell Douglas Corp.*, 191 F.3d 948, 950-51 (8th Cir. 1999) (rejecting EEOC's attempt to offer evidence of

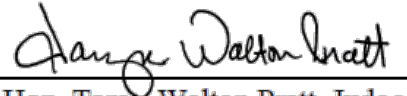
disparate impact based on age 55 and over versus under age 55); *Smith v. Tennessee Valley Auth.*, 924 F.2d 1059 (6th Cir. 1991); *Lowe v. Commack Union-Free Sch. Dist.*, 886 F.2d 1364 (2nd Cir. 1989). Likewise, the Court finds that these age groups appear to have been selected because it yielded the desired result—a showing of adverse impact—not because it was necessarily relevant to Mr. Bingham’s claim.

Dr. Seberhagen’s analysis did not properly apply his methodology to the relevant facts in the case. As previously discussed, he ignored important, relevant facts in his analysis. The Seventh Circuit has stated, “[s]tastical evidence which fails to properly take into account non-discriminatory explanations does not permit an inference of discrimination,” and that such analysis must account for an employer’s legitimate, non-discriminatory explanations. *Radue v. Kimberly-Clark Corp.*, 219 F.3d 612, 616-17 (7th Cir. 2000). Dr. Seberhagen did not include in his analysis any of the factors actually used by Raytheon in its RIF procedures. He instead assumes that layoff selections were random, despite the existence of Raytheon’s documented RIF guidelines, and despite evidence that Mr. Bingham’s supervisors selected a decisional unit and completed a decisional unit form. “[An] expert’s failure to make any adjustment for variables bearing on the decision whether to discharge or retain a person . . . other than age—his equating a simple statistical correlation to a causal relation— . . . indicates a failure to exercise the degree of care that a statistician would use in his scientific work[.]” *Sheehan v. Daily Racing Form, Inc.*, 104 F.3d 940, 942 (7th Cir. 1997). Because Dr. Seberhagen did not account for any of Raytheon’s legitimate, nondiscriminatory factors in his analysis, including salary grade, duties, department, geography,

job knowledge, or length of service, the Court concludes that his report and opinions provide no probative evidence supporting Mr. Bingham's age discrimination claim.¹

The Court finds that the report and testimony of Dr. Seberhagen do not satisfy the requirements of Federal Rule of Evidence 702 and the standards under *Daubert*, and are thus inadmissible at trial. Therefore, Raytheon's motion to exclude ([Filing No. 50](#)) is **GRANTED**.
SO ORDERED.

Date: 11/14/2014


Hon. Tanya Walton Pratt, Judge
United States District Court
Southern District of Indiana

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¹ Because the Court finds that Dr. Seberhagen's report and testimony are unreliable, they are also inadmissible under Federal Rule of Evidence 403 on the basis that their "probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury." Fed. R. Evid. 403.